

IN THE CLAIMS:

The text of all pending claims, (including withdrawn claims) is set forth below. Cancelled and not entered claims are indicated with claim number and status only. The claims as listed below show added text with underlining and deleted text with ~~striketrough~~. The status of each claim is indicated with one of (original), (currently amended), (cancelled), (withdrawn), (new), (previously presented), or (not entered).

**Please cancel claims 1-11 and add new claims 12-28 in accordance with the following:**

1-11 (Canceled)

12. (New) A method for determining a route for a radio transmission between a first radio station and a second radio station in a radio communications system having the first radio station, the second radio station, a plurality of potential carrier radio stations and a radio device, comprising:

sending a request to determine a route between the first and second radio stations;

using the adjacent positioning relationships at the radio device to identify at least one carrier radio station to route the radio transmission, the at least one carrier radio station being identified in response to the request to determine a route;

sending identification information from the radio device to the first radio station and/or the second radio station to identify the at least one carrier radio station; and

after the identification information has been sent, identifying at least one additional carrier radio station at the radio stations of the radio communications system; and

routing the radio transmission between the first radio station and the second radio station using the carrier radio stations identified by the radio device and the radio stations.

13. (New) The method in accordance with claim 12, wherein the radio device, to identify at least one carrier radio station, selects the at least one carrier radio station from a plurality of radio stations for which the radio device has adjacent positioning relationships.

14. (New) The method in accordance with claim 12, wherein the radio device sends the first radio station identification information to identify a third radio station as the at least one carrier radio station, and

the radio device does not send the second radio station any identification information.

15. (New) The method in accordance with claim 14, wherein  
the first radio station, after receiving the identification information relating to the third radio station, initializes the determination of a route between the first radio station and the third radio station, and

the third radio station between the third radio station and the second radio station.

16. (New) The method in accordance with claim 12, wherein  
the radio device identifies a plurality of carrier radio stations,  
the first radio station after receiving identification information relating to the plurality of carrier radio stations, initializes the determination of a route between the first radio station and one of the plurality of carrier radio stations, and

at least one of the carrier radio stations identified by the radio device initializes the determination of a route:

- between the relevant carrier radio station and another carrier radio station identified by the radio device, or
- between the relevant carrier radio station and the second radio station.

17. (New) The method in accordance with Claim 12, wherein  
the radio device identifies at least a third radio station and a fourth radio station as carrier radio stations,

the radio device sends the first radio station identification information to identify the third radio station, and

the radio device sends the second radio station identification information to identify the fourth radio station.

18. (New) The method in accordance with claim 17, wherein  
the first radio station, after receiving the identification information identifying the third radio station, initializes the determination of a route between the first radio station and the third radio station, and

the second radio station, after receiving the identification information identifying the fourth radio station, initializes the determination of a route between the second radio station and the fourth radio station.

19. (New) The method in accordance with 17, wherein  
the third radio station initializes the determination of a route between the third radio station and the fourth radio station and/or  
the fourth radio station initializes the determination of a route between the fourth radio station and the third radio station.

20. (New) The method in accordance with claim 17, wherein  
the radio device additionally sends the first radio station identification information identifying the fourth radio station and/or additionally sends the second radio station identification information identifying the third radio station and the first radio station.

21. (New) The method in accordance with claim 13, wherein  
the radio device sends the first radio station identification information to identify a third radio station as the at least one carrier radio station, and  
the radio device does not send the second radio station any identification information.

22. (New) The method in accordance with claim 21, wherein  
the first radio station, after receiving the identification information relating to the third radio station, initializes the determination of a route between the first radio station and the third radio station, and  
the third radio station initializes the determination of a route between the third radio station and the second radio station.

23. (New) The method in accordance with claim 13, wherein  
the radio device identifies a plurality of carrier radio stations,  
the first radio station after receiving identification information relating to the plurality of carrier radio stations, initializes the determination of a route between the first radio station and one of the plurality of carrier radio stations, and  
at least one of the carrier radio stations identified by the radio device initializes the determination of a route:

- between the relevant carrier radio station and another carrier radio station identified by the radio device, or
- between the relevant carrier radio station and the second radio station.

24. (New) The method in accordance with Claim 13, wherein  
the radio device identifies at least a third radio station and a fourth radio station as carrier  
radio stations,

the radio device sends the first radio station identification information to identify the third  
radio station, and

the radio device sends the second radio station identification information to identify the  
fourth radio station.

25. (New) The method in accordance with claim 24, wherein  
the first radio station, after receiving the identification information identifying the third  
radio station, initializes the determination of a route between the first radio station and the third  
radio station, and

the second radio station, after receiving the identification information identifying the  
fourth radio station, initializes the determination of a route between the second radio station and  
the fourth radio station.

26. (New) The method in accordance with 25, wherein  
the third radio station initializes the determination of a route between the third radio  
station and the fourth radio station and/or

the fourth radio station initializes the determination of a route between the fourth radio  
station and the third radio station.

27. (New) The method in accordance with claim 26, wherein  
the radio device additionally sends the first radio station identification information  
identifying the fourth radio station and/or additionally sends the second radio station  
identification information identifying the third radio station and the first radio station.

28. (New) A radio device for a radio communication system having a first radio  
station, a second radio station, and a plurality of potential carrier radio stations, comprising:  
a memory to store adjacent positioning relationships between the radio stations of the  
radio communications system;

a unit to use the adjacent positioning relationships to identify at least one carrier radio station to route a radio transmission on a path between the first radio station and the second radio station, the at least one carrier radio station being identified in response to a request for routing; and

a transmitter to send identification information identifying the at least one carrier radio station, the identification information being transmitted to the first radio station and/or the second radio station so that after the identification information is sent, the radio stations will determine at least one additional carrier radio station to complete the path between the first radio station and the second radio station.